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Semester: Spring 2019

Project Area: Agronomy

Objective:

Organize and evaluate temperature and relative humidity data

Outcomes:

I want the program to output an organized CSV file that includes clearly labeled time, temperature, and relative humidity values along with simple calculations for analysis. These calculations will include min, max, and average over different time periods. The program would also use the relative humidity to calculate vapor pressure deficit.

Rationale:

During our heat stress experiments we use HOBO loggers to log the temperature and relative humidity on 5 or 15 minute intervals. Since we leave these HOBOs in the field for the duration of the stress period (a month or more), when we extract the data we end up with a CSV file that has upwards of ten thousand entries that end up having to be manually manipulated to allow for basic excel analysis.

Sketch:

Import Raw CSV File

Adjust Date/Time Format

Round Time to Closest 5 min

Save Calculation in new CSV file

Complete Calculations